PROPOSALS CONCERNING A LEGAL SYSTEM FOR OCEANOGRAPHIC STATIONS

I. Introduction

Recently there has developed a renewed interest in the economic and military potential of the oceans; and as a result, the demand for oceanographic research has greatly increased.[1]

To facilitate the research, specially designed marine structures called "ocean buoys" or "stations" are being developed. Unlike contemporary vessels,[2] the stations are constructed so that they are able to remain at a fixed location for an indefinite period of time,[3] permitting accurate, long-term studies to be conducted.

The buoys are of two basic types. The first is an "unmanned ocean buoy,"[4] which will be equipped with automatic recording devices and transmitters. Data collected by this buoy will be broadcast to relay satellites or to shore based receivers.[5]

The second type is a "manned ocean buoy."[6] Designed to carry both men and equipment, this type may be permanently fixed on or below the ocean surface in one specific location, or it may be a free-floating, surface type.[7]

II. Problems Arising From the Use of Ocean Research Buoys

A multitude of problems arise when a state or private organization places an oceanographic station in the sea. Because sites chosen by oceanographers for the location of the ocean stations may coincide with those chosen for oil, mineral, cable and fishing operations, conflicts may arise as to the right to occupy certain areas of the oceans.[8] Of equal, if not greater importance, is the conflict which may develop

1 National Academy of Sciences—National Research Council, Oceanography 1960-70, ch. 7, at 11 (1959).

2 *Id.*, ch. 7, at 11.

3 *Ibid.*

4 National Academy of Sciences—National Research Council, *op. cit. supra* note 1, at 10.

5 Interagency Committee on Oceanography of the Federal Council for Science and Technology for the U.S.A., Oceanography: The Ten Years Ahead, A Long Range Oceanographic Plan 1963-1972, 33 (1963).

6 National Academy of Sciences—National Research Council, *op. cit. supra* note 3 at 12.

7 *Id.* at 12.

8 UNESCO, Intergovernmental Oceanographic Comm'n, Preliminary Report of the United Nations Educational, Scientific and Cultural Organization and the International Maritime Consultative Organization on the Legal Status of Unmanned and Manned Fixed Oceanographic Stations, 10 (NS/IOC/INF/34) (1962).

between research and shipping interests.[9] As indicated above, some of these stations are very large, and could cause extensive damage to small vessels should a collision occur.[10] On the other hand, the cost of the stations is considerable, and the information gathered from them invaluable, so it is equally important that the station itself be protected.[11] Surface buoys must be protected from collision, theft, and malicious destruction. Sub-surface stations must be protected from damage caused by anchors and fish nets which may snag the structure. At the same time, the right of vessels to fish and drop anchor where they choose should not be unduly infringed.[12]

Inevitably, one of these problems will create a dispute, and rights and liabilities of the parties will have to be determined. Consequently it is imperative that an international legal system capable of resolving these controversies be devised.[13]

One of the first steps to be taken in the formulation of a system of law sufficient to govern controversies centering around ocean buoys is to determine the nature or character of the station. If the buoys can be fitted into existing maritime definitional concepts, it may be possible to extend present international and domestic maritime law to resolve controversies. If it is not possible, it still may be necessary to categorize the buoys for the purposes of a convention conceived specifically to regulate ocean station relationships.[14] For example, a conventional vessel must maintain lighting and lookouts according to the provisions of the International Regulations; similarly, if the buoy is considered to be an "aid to navigation" or "an extension of land," local or international rules may again be dispositive of the issue of negligence. However, if it is determined that the ocean stations fit none of these definitions, or that conventional maritime law should not be used but a new system employed, it still may be desirable to devise an international, uniform scheme of marking and lighting the stations,[15] and to mark and light the stations according to classes of stations.[16]

Characterization is also important if a question of salvage arises,

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[9] UNESCO, Intergovernmental Oceanographic Comm'n, Report on the Second Session of the Commission, Annex V at 39, (NS/180) (1962); McDougal & Burke, The Public Order of the Oceans, 691-2 (1962).

[10] *Ibid.*

[11] *Ibid.*

[12] UNESCO, Intergovernmental Oceanographic Comm'n, Final Report of the Third Session, Annex XI-A, 79-80 (NS/191) (1964).

[13] Interagency Committee on Oceanography, *op. cit. supra* note 5 at 34.

[14] UNESCO, *op. cit. supra* note 12, Annex XI-A, at 79-80.

[15] *Ibid.*

[16] *Ibid.*

and conventional law is employed. Many marine objects are not subject to salvage law. Under conventional law the mere fact that it floats does not necessarily make the object amenable to salvage.[17]

The stations themselves, as well as the instruments housed within it, are very expensive; and the information recorded by the equipment invaluable.[18] Consequently, it is important that this property be protected from theft and malicious destruction. The question is by what system of law will they be protected. If the law of piracy is found to be adequate, should it apply to structures such as buoys? Or perhaps the criminal code of one or several of the states would be more acceptable. This is one of the more pressing problems to be solved by an international convention.

There is also a question of which state or organization has, or should be given, the right to adjudicate claims arising from the use of the oceanographic stations. At present, states have asserted broad jurisdiction to adjudicate maritime controversies, but it still remains to be decided whether oceanographic stations fall within the present jurisdictional schemes.[19] In addition, irrespective of whether it is possible for states to assert jurisdiction, a decision will have to be made as to whether conventional jurisdictional systems will afford the greatest protection to the stations, as well as maximum ease and economy in adjudicating claims.

This is by no means an exhaustive list of all the problems connected with the use of ocean stations. Only the more important, more pressing problems have been set forth. Recognizing the serious and intricate nature of these problems, the Intergovernmental Oceanographic Commission (IOC) has set about to draft an international convention which hopefully will not only present a solution to these problems but which will also be acceptable to all the states involved.[20] Consequently, in 1962 the Commission requested that all members contribute material which may serve as a basis for the convention. The members were asked to submit to UNESCO a report:

> (a) on their domestic laws, regulations, orders, court and administrative decisions, diplomatic correspondence and any other legal authority concerning such fixed oceanographic stations;
> (b) on their regulations and practices concerning the marking and identification of fixed oceanographic stations;
> (c) on what legal problems, if any, they would wish considered in a new international convention concerning fixed oceanographic sta-

17 Cope v. Vallette Dry Dock Co., 119 U.S. 625, 627 (1887).

18 See note 5 *supra.*

19 UNESCO, *op. cit. supra* note 8, at 19.

20 UNESCO, *op. cit. supra* note 9, Annex I, Resolution 18.

tions, together with the possible solutions that might be adopted in an international convention.[21]

As of June, 1964, only five member states had responded to this request.[22] The remainder of this comment will discuss existing maritime statutes and case-law of the United States and United Kingdom which may be pertinent to the solution of the problems enumerated above.

III. General and Specific Policies Governing the Choice of a Legal System

The general policy, which should underlie the formulation of a substantive and jurisdictional system of law capable of resolving disputes relating to oceanographic stations, is to preserve for all persons the maximum use of the oceans. All persons should be able to engage in any activity desired with only the minimum restraints necessary to prevent conflicts.[23] Such a policy is both desirable and possible since the ocean is such a large and empty area that many activities can be carried on simultaneously, and through cooperation, can be conducted with a minimum of physical interference from other parties.[24]

Interference with the freedom of the seas is justifiable only when the interference will produce proportionately greater benefits for man.[25] Since ocean research will benefit all ocean interests greatly, increased interference with other marine activities is justified in order to protect marine operations.[26] Therefore, the specific policy is to protect ocean research equipment and operations, even if this protection will mean that the remaining marine interests will be forced to yield some of their freedom of use of the sea.

IV. Definitional Status of Manned and Unmanned Oceanographic Stations

If certain portions of conventional maritime law are prescribed as the controlling law for the resolution of collision, theft, and salvage disputes involving oceanographic stations, it will be necessary to deter-

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21 *Ibid.*

22 UNESCO, Intergovernmental Oceanographic Comm'n, Report of the Director-General of the United Nations Educational, Scientific and Cultural Organization in Consultation with the Secretary-General of the Inter-governmental Maritime Consultative Organization on the legal Status of Oceanographic Research Stations, 278 (UNESCO/IOC/ in F-60 (1964). The states responding were: Argentina, Canada, Denmark, Philippines, and U.S.S.R. A list of 37 international conventions were also submitted for consideration. See generally *id.* at 279-282.

23 McDougal & Burke, *op. cit. supra* note 9, at 751.

24 *Id.* at 748-49.

25 *Id.* at 748.

26 *Id.* at 752.

mine whether the stations fall within certain classes of objects protected by existing law. In the past, it has been imperative that the object be embraced by one of the classes set out below in order to determine which set of rules will be applicable. Nevertheless, certain portions of existing maritime law may be selected as a basis for a convention notwithstanding the fact that the stations do not fit into any of the existing definitional classes in order that the protection provided by a certain set of rules may be prescribed for the stations.

A. *Vessel*

It has been suggested that the large, manned oceanographic stations be called "vessels" for the purpose of extending the rules for marking and lighting conventional vessels to the stations.[27] Such a characterization might also be useful for the purpose of invoking the conventional legal systems dealing with collision, destruction, and theft.

In the past, maritime law has limited its protection to objects which possess certain physical characteristics. Under the universal law of the sea, the term "vessel" is applied only to objects which have two distinctive characteristics: first, they must be floating structures, and second, they must be capable of transporting something over the water.[28] Similar requirements are imposed by maritime statutes. Typical is section 3 of Title 1 of the United States Code which defines the word "vessel" as "every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water." The purpose of requiring the object to possess certain distinctive characteristics was to limit the protection of the system to certain prescribed objects.

Yet when the purpose of denominating an object as a vessel changes, the physical requirements are greatly modified if not overlooked altogether. If, for example, the purpose of denominating an object as a "vessel" is to allow an injured person to avail himself of the remedies for seamen provided by the Jones Act,[29] physical requirements are overlooked and the term "vessel" is liberally construed.[30] The controversy in *Guilbeau v. Falcon Seaboard Drilling Co.*[31] centered around an oilworker who was injured while working on a submersible drilling rig. The court acknowledged the traditional definition of a

27 UNESCO, *op. cit. supra* note 12, Annex XI-A, at 79.

28 Gilmore & Black, The Law of Admiralty, 30 (1957).

29 1 Stat. 255 (1792), 46 U.S.C. § 688 (1964).

30 Annot., 75 A.L.R.2d 1312 (1961).

31 215 F. Supp. 909 (E.D. La. 1963).

"vessel," yet nevertheless held that, for the purpose of allowing a suit under the Jones Act, a submersible drilling rig, which neither floats nor transports, is a "vessel."

> However, it (a vessel) may also mean something more than a means of transportation on water. It can be a special purpose craft, an unconventional vessel not usually employed as a means of transporting by water but designed for occupations offshore and in the shallow coastal waters of the Gulf of Mexico. . . . The submersible drilling rig here is such a special purpose craft and there can be little question that the drilling barge known as Rig No. 4 is a vessel.[32]

Thus, for the purpose of extending Jones Act protection, few, if any physical limits are put on the term "vessel."

Similarly, for the purpose of prescribing certain portions of existing maritime law as controlling in cases centering around oceanographic buoys, the term vessel might be defined as including "any oceanographic research device which is located in navigable waters."

B. *Aid to Navigation*

An "aid to navigation" is defined by United States Federal Regulations as any device external to a vessel or aircraft intended to assist a navigator to determine his position or safe course, or to warn him of dangers or obstructions to navigation.[33] However, only a small amount of the equipment contained aboard the research stations is intended to function as an aid to navigation.[34] The stations mark no channels, do not indicate hidden navigational dangers, and, except in the case of stations equipped with radio transmitters which emit signals to aid in submarine navigation, they indicate no particular location on the seas.[35] Because of their extreme importance to shipping, laws have been passed to give aids to navigation an extraordinary measure of protection from collision, theft, and intentional damage, protection not accorded vessels or ordinary marine objects.[36] Consequently, even though the stations may not be designed or function as a conventional aid to navigation, it may be desirable to denominate these stations as aids to navigation in order to provide them with greater protection against collision, theft, and malicious destruction.

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[32] *Id.* at 910.

[33] 33 C.F.R. § 60.01-5(a) (1962).

[34] UNESCO, *op. cit. supra* note 8, at 3.

[35] *Ibid.*

[36] *E.g.*, Merchant Shipping Act, 1894, 57 & 58 Vict., c. 60 s. 666, 684; Malicious Damage Act, 1861, 24 & 25 Vict., c. 97, s. 48; 33 U.S.C. §§ 408, 411, 412 (1964); 46 U.S.C. § 1333 (1964); Aids to Navigation Protection Regulations, SOR/64-323, 98 Can. Gaz. 823 (1964).

C. *Marine Objects*

Under conventional maritime law, many claims arise concerning objects which fail to meet the physical tests of either a vessel or an aid to navigation. Nevertheless, admiralty courts will adjudicate claims involving "marine objects" if (1) they are found in, and (2) the cause of action arises in, navigable waters.[37] If both conditions are fulfilled, courts of the United States[38] and the United Kingdom[39] will apply the entire body of maritime law to the problem. If the sole purpose of a convention were to *extend* existing maritime law to the stations, all of the stations could meet the physical requirements of this category. However, the purpose of classifying the stations is not merely to find some law which will be applicable, but rather to prescribe law which will afford the stations equal, or greater protection than that enjoyed by other interests. Consequently, the stations should not be classified as "marine objects," for such a classification will not create as great a protection as might be gained by classifying the stations as vessels or aids to navigation.

If the purpose for classifying were merely to extend existing law to the stations, problems would arise in meeting the physical requirements of each of the above definitional classes. But this is not the purpose. The purpose for classifying the stations is to examine and then select a system of law which will most adequately carry out the policy of giving the stations as much protection as possible. This purpose should be borne in mind when examining existing substantive and jurisdictional maritime law.

V. Substantive Law

There is a great deal of substantive law which could advantageously be embodied in a convention for the purpose of determining collision, theft, and salvage claims involving oceanographic stations.[40] Much of the law set out below could be adopted as a basis for the substantive portion of the convention with little or no modification. However, the law concerning maritime disputes, especially disputes involving intentional and accidental damage to marine property, is "extremely complicated and varies in its application from place to place."[41] Consequently, it would be confusing, if not hazardous, to allow operators of vessels and oceanographic stations to proceed with-

37 The M. R. Brazos, 17 Fed. Cas. 951 (No. 9,898) (S.D.N.Y. 1879).

38 McWilliams Dredging Co. v. United States, 105 F. Supp. 582 (E.D. La. 1952).

39 The Clara Killam, L.R. 3 Adm. & Eccl. 161 (1870).

40 UNESCO, *op. cit. supra* note 22, at 278-82.

41 UNESCO, *op. cit. supra* note 8, at 16.

out a definite and clear statement of their respective rights and liabilities. Therefore, the law should be clarified through the adoption of an international convention. This portion of this comment will examine the pertinent case-law and statutes of the United States and the United Kingdom with a view toward recommending a portion of the existing law to be used as the substantive basis of a convention.

A. *Collision*

English and United States maritime case-law has adequately provided for the determination of liability in cases of collision between a vessel and a marine object. The substantive maritime law of these two States is almost identical, due to the fact that the United States very early in its history adopted English maritime law,[42] and the subsequent development of the law in these two States has been, for the most part, parallel.[43] Further, Great Britain for centuries dominated the world's shipping,[44] resulting in wide application of the system with apparent success. For these reasons, it is likely that an examination of this system will yield law which will adequately protect the stations in cases involving collision with vessels.

The attitude of the English courts towards damage done by a vessel to a "marine object" is well-stated in *The Clara Killam*.[45] In that case, a ship dropped anchor in the English Channel, and the anchor snagged a submarine telegraph cable. The captain of the ship ordered the cable cut in order to free the anchor; the cable company libeled for the damages sustained by the cable. Sir Robert Phillimore, in holding for the cable company, stated:

> I must consider that this telegraph cable was lawfully placed at the bottom of the sea. I must also consider that the vessel which did the injury to it was in the exercise of her right, both in navigating the surface of the sea and in dropping her anchors when and where she did. The law requires that each party should exercise his right so as, if possible, to avoid a conflict with the right of the other. It was the duty, therefore, of the ship, if possible, to disentangle her anchor from the cable without injuring it.[46]

The opinion sets out clearly the general rule of liability for collision: one, who through his negligent use of the seas, injures another, is liable in damages.[47] A vessel which negligently injures a marine

[42] De Lovio v. Bolt, 7 Fed. Cas. 418 (No. 3,776) (C.C.D. Mass. 1815).

[43] The Diana, 539 Lush. 243, 167 Eng. Rep. 243, 244 (Adm. 1862).

[44] McDougal and Burke, *op. cit. supra* note 9, at 823.

[45] L.R. 3 Adm. & Ecc. 161 (1870).

[46] *Ibid.*

[47] *Ibid.; accord* International Convention for the Unification of Certain Rules to

object, must pay damages; conversely, a marine object which is the source of injury to a vessel may be successfully libelled. The determination of liability will turn upon two issues: the right of the vessel and marine object to conduct operations at a particular point in the seas, and the compliance of the vessel and marine object with national or international navigation and lighting rules which are applicable in the particular case.[48]

United States courts adhere to an identical rule. *The Clara*[49] points out that the party at fault must bear all of his own losses and compensate the other party for his damages. If neither party is found to be at fault, then each must bear his own loss. But if both parties are found to be at fault, the damages will be divided. This rule has been extended to cover marine objects, such as buoys and beacons.[50] Vessels must maintain ordinary care in navigation to avoid collision; and the ship is negligent if it maintains a standard of less than ordinary care toward marine objects.[51] As in England, it is also important whether the vessel or marine object had a right to be where it was at the time of the collision, and whether or not it was adequately marked, lighted, and navigated.

While this law appears to be adequate, states have deemed it necessary to enact specific legislation for the protection of aids to navigation. One reason is that the damage to the ship is slight in a collision with a buoy, but is extensive to the marine object. Further, the buoys are for the most part unmanned, and the offending ship may leave the scene of the collision without making good the damages. Lastly, beacons and the like are so important to navigational safety that the states wished to provide a strong deterrent to prevent their damage. As a result, statutes now contain the bulk of the substantive law concerning damage to marine objects, such as buoys, wharves, and the like.

In the United Kingdom, provisions of the Merchant Shipping Act[52] determine rights and liabilities of parties involved in collision with aids to navigation. That act provides in part:

Govern the Liability of Vessels When Collisions Occur Between Them, and a Protocol Thereto, Benedict, Admiralty 37-42 (Knauth 7th ed. 1958).

48 International Regulations for Preventing Collisions at Sea, 33 U.S.C. §§ 1051-1094 (1964).

49 102 U.S. 200, 203 (1880).

50 The C. W. Mills, 241 Fed. 204 (S.D. Ala. 1915); aff'd., 241 Fed. 378 (5th Cir. 1917).

51 Merchant Shipping Act, 1894, 57 & 58 Vict., c. 60, s. 666; Placid Oil Co. v. S.S. Willowpool, 214 F. Supp. 449 (E.D. Texas, 1963).

52 Merchant Shipping Act, 1894, 57 & 58 Vict., c. 60, s. 666.

Offences in connexion with Lighthouse, & c.
(1) A person shall not willfully or negligently—
(a) injure . . . any buoy or beacon;
(b) remove, alter, or destroy any . . . buoy, or beacon; or
(c) ride by, make fast to, or run foul of any lightship or buoy.
(2) If any person acts in contravention of this section, he shall, in addition to the expenses of making good any damage so occasioned, be liable to each offence to a fine not exceeding fifty pounds.[53]

This act not only makes certain that any damage done to an aid to navigation be made good by the negligent party, as does maritime case law, but it also provides the additional deterrent of a fine. In determining whether this statute is adequate as a basis for an international convention, it must be decided whether the statute will provide adequate protection for the stations. In order to carry out the policy of giving greater protection to the stations than to other maritime interests, it would be advantageous not only to require that compensation be made for the damage done to the station, but also to insure protection through an additional deterrent such as a fine. The Merchant Shipping Act might well serve as a basis for convention.

To invoke this, the term "buoy" could be broadly defined to include stations of all types. This, combined with a uniform system of marking and lighting[54] to warn other maritime interests of the presence of the stations, and in some cases, to determine negligence, would provide adequate protection for the stations.

Canada has supplemented its maritime case-law with regulations to protect aids to navigation.[55] These regulations do not, however, provide for assessment of damages against the negligent party. They do provide fines for (1) failure to report the damage, and (2) for committing the act which caused the damage. The Aids to Navigation Protection Regulations state:

2. "[A]id to navigation" means a buoy, beacon . . . or any other structure . . . maintained for the purpose of assisting the navigation of vessels.
3. (1) The person in charge of any vessel or tow that, through accident or unavoidable circumstances, runs down, moves, injures or destroys an aid to navigation shall report the fact to the nearest District Marine Agent. . . .
(2) [Anyone required] who fails to report as soon as practicable by the means prescribed in sub section (1) is guilty of an offence and is liable on summary conviction to a fine not exceeding fifty dollars.

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[53] *Ibid.*

[54] UNESCO, *op. cit. supra* note 12, Annex XI-A, at 79 provides a suggested system of marking and lighting of the oceanographic stations.

[55] Aids to Navigation Protection Regulations, SOR/64-323, 98 Can. Gaz. 823 (1964).

> 4. Every person who willfully or negligently injures, conceals, removes, alters or destroys an aid to navigation or permits any vessel or tow under his control to run foul of or to be made fast to any aid to navigation is guilty of an offence and is liable on summary conviction to a fine not exceeding two hundred dollars.[56]

Since many of the ocean stations will be unmanned, it is necessary that some means be adopted for compelling negligent or non-negligent vessels to report the collision to the owner of the station, to the "flag state" of the station, or to an international agency with facilities to accomodate such reports. The international convention should cover this problem. The Regulations above suggest one approach. Since the Regulations are directed exclusively toward aids to navigation, the question of their applicability to ocean stations arises. This problem could be solved by a minor alteration of the text like that suggested for the English Merchant Shipping Act.

The Regulations also provide for an all-inclusive fine for injuring the buoys, apparently without regard to fault. It might be argued that liability without fault would instill in navigators a higher degree of caution toward the stations. On the other hand, mariners who know that they will be punished summarily without the benefit of a determination of negligence may be less prone to report the collision. An injured station might then flounder in the sea incurring greater damage from the elements than the amount of the fine could repair.

The United States has enacted provisions which seem to include the best of both the English statute and the Canadian Regulations. Further, the provisions were clearly intended to cover research devices. Section 408 of Title 33 of the United States Codes states:

> It shall not be lawful for any person or persons to take possession of or make use of for any purpose, or build upon, alter, deface, destroy, move, injure, obstruct by fastening vessels thereto or otherwise, or in any manner whatever impair the usefulness of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States, or any piece of plant, floating or otherwise, used in construction of such work under the control of the United States, in whole or in part, for the preservation and improvement of any of its navigable waters or to prevent floods, or as boundary marks, tide gauges, surveying stations, buoys, or other established marks. . . .[57]

Section 408 is broad enough to protect all of the oceanographic stations in question. The statute does not limit itself to aids to navigation, for it includes, *inter alia*, "tide guages" and "surveying stations"

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[56] *Ibid.*

[57] 30 Stat. 1152 (1899), 33 U.S.C. § 408 (1964).

and may include all types of oceanographic stations, without distorting the usual meaning of those terms as was necessary under the English Act.[58] Further, recent cases have indicated that this section is to be liberally construed in order to extend protection to the greatest number of devices.[59]

Section 411[60] provides in personam liability for violating Section 408, similar to Section 666(2) of the English Merchant Shipping Act,[61] and section 4 of the Canadian Regulations.[62] This quasi-criminal statute allows fines in the amount of not less than 500 dollars, and not more than 2,500 dollars,[63] and provides, in the case of natural persons, for prison sentences of not less than thirty days nor more than one year.[64] These penalties, unlike those in the Canadian Regulations, can serve as effective deterrents because they can be adjusted to the seriousness of the damage to the stations and the hindrance to the collection of valuable information.

The conventional, maritime *in rem* remedy of the injured party is set forth in section 412:[65]

> And any boat, vessel, scow, raft, or other craft used in or employed in violating any of the provisions of sections . . . 408 . . . shall be liable for the pecuniary penalties specified in section 411 of this title, and in addition thereto for the amount of the damages done by said boat, vessel, scow, raft, or other craft, which latter sum shall be placed to the credit of the appropriation for the improvement of the harbor or waterway in which the damage occurred, and said boat, vessel, scow, raft, or other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof.[66]

While section 412 contains the traditional maritime *in rem* remedy, it modifies that law to the extent that it is no longer necessary to prove negligence on the part of the offending vessel. *United States v. M/V*

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[58] *Supra* note 51.

[59] United States v. The S.S. American Hunter, 192 F. Supp. 447 (S.D.N.Y. 1961). Although this section is included under a heading which addresses itself to the Army Corp of Engineering, the court held that the protection of section 408 is to be extended to buoys operated by all departments of government. Upon rehearing (199 F. Supp. 531, S.D.N.Y. 1961), the court went further, stating that section 408 applies to all buoys, whether they be aids to navigation or not.

[60] 30 Stat. 1153 (1899), 33 U.S.C. § 411 (1964).

[61] See note 51, *supra.*

[62] See note 55, *supra.*

[63] 30 Stat. 1153 (1899), 33 U.S.C. § 411 (1964).

[64] *Ibid.*

[65] 30 Stat. 1153 (1899), 33 U.S.C. § 412 (1964).

[66] *Ibid.*

Vitanic[67] involved a ship which collided with a beacon in a harbor. The beacon consisted of a blinking light mounted on a three-pier structure. The court held that the M/V Vitanic, regardless of negligence, was liable for the damage done to the structure and for pecuniary fine provided by sections 408, 411, and 412[68] merely because it was the instrument which caused the damage.[69] While the wisdom of such a holding will not be discussed here, it must be conceded that such a measure would provide strong deterrent protection for the stations.

Due to the strong protection, the ease of proof, and the absence of definitional problems, sections 408, 411, and 412 of Title 33 would provide a suitable framework for vessel liability under the international convention.

The focus of the foregoing discussion has been on the liability of the vessel, and indeed the one serious drawback to each of the groups of legislation set out above is that there is no provision for the liability of oceanographic stations if they are found to be the source of injury to vessels. At least three solutions to this problem exist: (1) include in the convention the traditional maritime negligence rules providing for the liability of marine objects which are the source of damage to the vessels; (2) extend the liability provision of sections 408, 411, and 412 to the oceanographic stations; or (3) include section 1333 of Title 43, United States Code, in the convention.

The first suggestion is objectionable for the same reason that maritime case law is objectionable for determining vessel liability. The case law is complicated and obscure in many areas,[70] and cannot be restated with any real degree of precision and accuracy. It would be more advantageous to employ the clean, precise language of one or both of the statutes mentioned in (2) and (3) above.[71]

Sections 408, 411, and 412 might be employed to protect the vessels. The main problem here is that these sections hold the vessel

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67 1958 A.M.C. 998 (W.D. Wash.).

68 30 Stat. 1152-53 (1899), 33 U.S.C. §§ 408, 411, 412 (1964).

69 *Supra* note 67, at 1002.

70 As an example of the complications which arise, see Lauritzen v. Larsen, 345 U.S. 571 (1953). In determining what law to apply to the claim of an injured seaman, the court found it necessary to consider: (1) the situs of the wrongful act; (2) the law of the flag of the ship; (3) the allegiance or domicile of the injured; (4) the allegiance of the defendant; and (5) the place of the contract of employment. Many of these problems will be avoided by use of an international convention which will have universal, uniform application.

71 Note, however, the maritime case-law provides an *in rem* remedy against negligently maintained marine objects. McWilliams Dredging Co. v. United States, 105 F. Supp. 582, 588 (E.D. La. 1952).

summarily liable without a finding as to negligence.[72] Therefore, the cause would be adjudicated without ever determining whether the station was properly marked or lighted. One solution might be to strike the provisions calling for a summary determination of liability, and substitute provisions for a finding on the issue of negligence. It would also be necessary to alter the text of the statute so that it would include not only damage done by a vessel, but also damage done to a vessel. The penal provisions would then be applicable to the owners of ocean stations and would deter careless placement of the stations and negligent maintenance of the buoy warning system. This method, however, involves major revision of sections 408, 411, and 412.

The third solution is to invoke section 1333 (e)(2) of title 43. This section provides that inadequately marked stations may be marked by the Coast Guard or any governmental body having jurisdiction over the waters in which the stations are placed, and allows the owners of the offending station to be fined up to 100 dollars per day for each day the station remains inadequately marked.[73] Such a provision is necessary because poorly marked stations are a continuous source of danger to all ships which pass through the area. The section would be preventative rather than remedial, however, because the use of adequate markings will avoid collisions, and thus lessen the necessity to invoke the liability-determining sections of the convention. It is possible to make this statute consistent with sections 408, 411, and 412, in three ways: (1) use the fines as a set-off against the amount of the award due from the vessel; (2) provide that the fines be paid to the body which has jurisdiction over the stations; or (3) have a determination of negligence for both the vessel and the station. If the station is found negligent, it will pay the fine specified in section 1333(e)(2) in addition to the damage to the ship.[74]

The final proposal is that sections 408, 411 and 412 of Title 33, and section 1333(e)(2) of Title 43 be combined, as modified above, to form a firm basis for an international convention. The result would be as follows:

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[72] See note 67, *supra*.

[73] 67 Stat. 462 (1953), 43 U.S.C. § 1333 (e)(2) (1964).

[74] The reader's attention is invited to 14 U.S.C. §§ 81, 83, 84, 90, and 94 (1964), Coast Guard provisions concerning buoys and oceanographic research; 33 C.F.R. §§ 66.01-1-67.50-45 (1962), concerning the marking of private aids to navigation on the Continental Shelf; 33 C.F.R. §§ 140.01-1 to 140.10-45 (1962), and §§ 140.20-1 to 140-20-5 (1962), concerning the marking and lighting of artificial islands and fixed structures located on the Continental Shelf (penalty set out there is that of 43 U.S.C. § 1333 (1964)); and 33 C.F.R. § 146.05-35 (1962), concerning the safety equipment required for manned platforms.

(1) when the vessel is found to be negligent, there would be:
   (a) an *in rem* remedy for damages (sections 408 and 412, as modified); and
   (b) a quasi-criminal provision for fines and prison sentences (section 411).
(2) when the station is found to be negligent, there would be:
   (a) an *in rem* remedy for damages (sections 408 and 412, as modified);
   (b) a penalty for negligent maintenance of the stations (section 1333(e)(2).

The result would be a clear and concise statement of rights and liabilities of both vessels and stations in the event of a collision, as well as greater protection for the stations than is afforded vessels and other marine objects.

B. *Intentional Damage and Theft*

Problems arising under this heading will be unilateral. The intentional damage or theft will be committed against the stations, and not the converse. Unmanned stations obviously cannot commit a malicious act against a vessel, and the manned stations are not sufficiently mobile to ply the seas for these purposes. The very fact that the stations are small in relation to the vessels, and, for the most part unmanned, makes them and their equipment extremely susceptible to acts of intentional damage and theft.

A number of statutes have made provision for intentional damage to buoys. England's Merchant Shipping Act,[75] discussed above, explicitly provides remedies for willful injury of an aid to navigation. However, an earlier statute, the Malicious Damage Act of 1861,[76] deals with the problem more forcefully than does the Merchant Shipping Act. Section 48 of the Malicious Damage Act reads:

> Whosoever shall unlawfully and maliciously cut away, cast adrift, remove, alter, deface, sink, or destroy, or shall unlawfully and maliciously do any Act with Intent to cut away, cast adrift, remove, alter, deface, sink, or destroy, or shall in any other manner unlawfully and maliciously injure or conceal any Boat, Buoy, Buoy Rope, Perch, or Mark used or intended for the Guidance of Seamen, or for the Purpose of Navigation, shall be guilty of Felony, and being convicted thereof shall be liable at the Discretion of the Court, to be kept in Penal Servitude for any Term not exceeding Seven Years....

This portion of the Malicious Damage Act provides protection for aids to navigation from all types of malicious destruction, and few acts

[75] 1894, 57 & 58 Vict., c. 60 § 666.
[76] 1861, 24 & 25 Vict., c. 97, § 48.

are able to escape its application. A minor objection is that it applies only to aids to navigation, and was never intended to apply to structures such as ocean stations.

Title 33 of the United States Code presents no such definitional problems. As shown above,[77] section 408,[78] applies explicitly to research devices as well as aids to navigation. It includes malicious destruction as well as inadvertent damage. Section 411, which contains quasi-criminal provisions for fines and prison terms, does not distinguish between willful and negligent damage. Section 412, in addition to providing an *in rem* remedy against the offending vessel, is the first of the series of sections cited which draws a distinction between willful and negligent acts. However, this portion of section 412 applies only to a ". . . master, pilot, and engineer, or person or persons acting in such capacity . . . ."[79] One who is found to have willfully injured a research device is liable, in addition to the fines and sentences of section 411, to a suspension or revocation of his license.[80] Except for the persons enumerated, no greater penalty is made for willful damage than for negligent injury.

Two solutions are available: (1) use a strict criminal statute such as the Malicious Damage Act to impose greater penalties on those who willfully destroy or damage the ocean stations; or (2) use sections 408, 411, and 412 to make negligent damage of the stations an equally grave offense as willful damage. The choice depends upon whether it is more desirable to provide reparations for damage to the stations notwithstanding how the damage was occasioned, or whether it is more desirable to provide reparation for damage to the stations, but still retain the distinction between intentional and negligent acts. The first alternative will avoid proof of intent and will afford greater protection of the stations than a negligence-orientated system.

Theft can and must be distinguished from both negligent and intentional damage. The Preliminary Report of the IOC[81] suggests that Article 15 of the Convention of the High Seas will protect the stations from theft. The Convention appears to restate the basic concepts of piracy, and extend these concepts to aircraft as well as to vessels. The definitions of piracy in Article 15 of the Convention[82] (acts of violence, detention, and depredation), in English cases, such as *Re Piracy Jure*

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77 See United States v. The S.S. American Hunter, *supra* note 59.

78 30 Stat. 1152 (1899), 33 U.S.C. § 408 (1964).

79 30 Stat. 1153 (1899), 33 U.S.C. § 412 (1964).

80 *Ibid.*

81 UNESCO, *op. cit. supra*, note 8, at 15-16.

82 Convention on the High Seas, Article 15.

Gentium[83] (robbery and depredation), and in United States cases, such as *United States v. Smith*[84] (robbery and forcible depredations), all suggest that piracy is something more than mere theft. The *Smith* case states that: piracy is only a sea term for robbery, piracy being a robbery committed within the jurisdiction of the admiralty.[85]

It appears that piracy is premised upon the existence of a *manned* structure which offers resistance to the piratical acts, that inherent in the act of piracy is a threat to the well-being or life. Three points support this conclusion: (1) robbery, the synonym of the term piracy, means the felonious taking of another's property from his person or in his presence,[86] theft, however, merely means the taking of another's property without his consent,[87] (2) punishment for piracy indicates something far more grevious than mere theft;[88] and (3) a careful search has revealed no case where taking of property not aboard a manned vessel was held to be piracy.

Since many of the oceanographic stations are unmanned, protection through the law of piracy is doubtful. Consequently, prescribing the law of piracy would give little protection to the stations.

Both England and the United States have enacted statutes dealing with maritime theft. England has contributed the Larceny Act.[89] Section 15 of that Act reads as follows:

> Every person who steals—
> (1) any goods in any vessel, barge or boat or any description in any haven or any port of entry or discharge or upon any navigable river or canal or in any creek or basin belonging to or communicating with any such haven, port, river, or canal; or
> . . . . .
> (3) any part of any vessel in distress, wrecked, stranded, or cast on shore, or any goods, merchandise, or articles of any kind belonging to such vessel;
> shall be guilty of felony and on conviction thereof liable to penal servitude for any term not exceeding fourteen years.[90]

Two modifications of this statute will be necessary before it will be of any value to the drafters of the international convention. First, the

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[83] [1934] A.C. 586 (H.K.).

[84] 18 U.S. (5 Wheat.) 153 (1820).

[85] *Id.* at 161.

[86] Deal v. United States, 274 U.S. 277, 283 (1927).

[87] Jolly v. United States, 170 U.S. 402, 404, 405 (1898).

[88] 18 U.S.C. § 1651 (1964). "Whoever, on the high seas, commits the crime of piracy as defined by the law of nations, and is afterwards brought into or found in the United States, shall be imprisoned for life."

[89] 1916, 6 & 7 Geo., c. 50.

[90] *Ibid.*

term "oceanographic station" must be substituted for the term "vessel." Second, a provision must be included to cover the possibility of theft of the entire station, which is a real possibility in the case of the smaller oceanographic stations. With these minor additions, this statute will provide an adequate basis for the determination of liability in the case of theft of equipment or information in, or parts of, an oceanographic station, or of the entire station itself.

Title 18 of the United States Code provides two sections, which may be acceptable either separately or together.

Section 661[91] deals with the theft of any personal property occurring within the maritime jurisdiction of the United States:

> Whoever, within the special maritime and territorial jurisdiction of the United States, takes and carries away, with intent to steal or purloin, any personal property of another shall be punished as follows:
>
> If the property taken is of a value exceeding $100, or is taken from the person of another, by a fine of not more than $5,000, or imprisonment for not more than five years, or both; in all other cases, by a fine of not more than $1,000 or by imprisonment not more than one year, or both.

"Special maritime and territorial jurisdiction" is defined by statute to include, *inter alia*, the high seas, and all other water within the maritime and admiralty jurisdiction of the United States.[92]

Under section 661, no distinction need be made as to whether the station is a vessel, an aid to navigation, an extension of land, or a marine object. Further, no problem will arise as to whether goods taken are a part of the station, or merely equipment therein. The term "personal property" is broad enough to cover all objects, including the station itself, which are placed in the seas. The choice between section 661 of Title 18, United States Code, and section 15 of the Larceny Act will turn upon the desirability of an extensive enumeration of the subject matter of the theft, as in the Larceny Act, or a cover-all phrase such as "personal property," and the desirability of the remedy provided by each.

The second proposed statute contained in Title 18 is section 2276. The text of this section is as follows:

> Whoever, upon the high seas or on any other waters within the admiralty and maritime jurisdiction of the United States, and out of the jurisdiction of any particular state, breaks or enters any vessel with intent to commit any felony, or maliciously cuts, spoils, or destroys any cordage, cable, buoys, buoy rope, head fast, or other

[91] 18 U.S.C. § 661 (1964).

[92] 18 U.S.C. § 7 (1964).

> fast, fixed to the anchor or moorings belonging to any vessel, shall be fined not more than $1,000 or imprisoned not more than five years, or both.[93]

This statute is partially directed at theft, and other felonies, and partially directed at malicious destruction. Further, it is limited to vessels, which again presents a definitional problem. As worded, this statute would be comparatively ineffective and undesirable as a basis for either the malicious destruction or theft section of the proposed international convention.

Either section 15 of the Larceny Act or section 661 of Title 18 will provide adequate protection of the stations against theft. Similarly, section 48 of the Malicious Damage Act will provide adequate protection against intentional destruction if the drafters of the convention wish to treat intentional destruction as a separate problem.

C. *Salvage*

At the outset, it must be determined whether it is desirable to apply salvage rules to the oceanographic stations. It would appear that to be consistent with the protectionist policy set out above, it would be most desirable to provide for the salvage of stations in danger of damage or destruction from the sea. However, the IOC has voiced concern that the application of the salvage rules to the stations may actually foster interference with the stations through "feigned" salvage operations.[94] The objection has merit. Vessels in distress have witnesses to vouch for the need for the salvors aid; and cargo, vessel equipment and similar objects usually lack witnesses, but are found in the sea only when they have been jettisoned or have been torn from the ship by the elements of the sea. But the bulk of the buoys, aids to navigation, and ocean stations are deliberately designed to be placed in the ocean at a particular place and left unattended for long periods of time. Under such circumstances a feigned salvage operation could be conducted with ease.

The decision whether or not to apply salvage rules involves weighing the danger of feigned salvage against the possibility of refusal, or lack of inducement, to salvage a station if it should in fact be placed in peril. Against the objection voiced by the IOC must be weighed the desire to protect both valuable equipment and information from damage and destruction in the sea. A careful consideration of two factors supports application of the salvage rules: First, the burden of proof of all the elements of a salvage claim is on the salvor. In a feigned

[93] 18 U.S.C. § 2276 (1964).

[94] UNESCO, *op. cit. supra*, note 8, at 18.

salvage operation, the element of peril will be absent.[95] To prove this element, the would-be salvor must overcome evidence that the station was solidly moored, weather factors were not adverse, and the presumption that the station was not in peril. Second, the value of the station and the equipment and information contained therein demands the assurance of rescue that the salvage rules provide. Few will expend the time and effort as well as risk the elements of the seas and the chances of delayed shipments if they are informed that no award will be given them. Without such an inducement, not only will some interference and loss of information be occasioned (through feigned salvage), but all the information, equipment and station itself will be a total loss. The time and expense of duplication of the lost items far outweighs the risk of pretended salvage.

Assuming that the decision is to apply salvage rules, it is suggested that the salvage system as formulated by English and American maritime case opinions be adopted. To the knowledge of this writer, there is very little pertinent statutory material in these jurisdicitions which concerns itself with the subject of salvage. What little material exists is concerned primarily with the procedure for returning the property and claiming the award.[96]

Generally, three elements are universally recognized as necessary in order that there be a valid salvage claim. There must be: (1) a marine peril; (2) a rescue service which was voluntarily rendered, *i.e.*, the service was not required by a pre-existing duty or a contract; and (3) partial or complete success in the rescue operation (or that the service contributed to such success).[97]

Once the property has been recovered from the peril of the seas, a lien arises against the owner of the property and in favor of the salvor.[98] The amount of the lien is the amount of the reward due the salvor for his successful salvage operation. The reward is not merely

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[95] *Ibid.*

[96] See 1 Stat. 255 (1792), 46 U.S.C. § 721 (1964):

Counsuls and vice counsuls, in cases where vessels of the United States are stranded on the coasts of their consulates respectively, shall, as far as the laws of the country will permit, take proper measures, as well for the purpose of saving the vessels, their cargoes and appurtenances, as for storing and securing the effects and merchandise saves, and for taking inventories thereof; and the merchandise and effects saves, with the inventories thereof so taken, shall, after deducting therefrom the expenses, be delivered to the owners. No counsul or vice counsul shall have authority to take possession of any such merchandise, or other property, when the master, owner, or consignee thereof is present or capable of taking possession of the same.

[97] The Sabine, 101 U.S. 384 (1879).

[98] Cope v. Vallette Dry Dock Co., 119 U.S. 625, 628 (1887).

"quantum meruit or renumeration pro opere et labore,"[99] but an amount in excess of the value of the services rendered which will serve as an inducement to mariners to voluntarily salvage property.[100]

It is interesting to note that courts, especially English courts, have refused to extend salvage law to objects such as buoys. The case of *Wells v. The Gas Float Whitton No. 2*[101] involved a floating gas buoy which was anchored to the sea floor. The buoy in question greatly resembled some of the ocean stations: it was 50 feet long, 20 feet wide, and resembled a vessel. The buoy broke loose from its moorings during a gale, and the plaintiff rescued it from the sea.[102] The following excerpt from the *Wells* opinion is indicative of English law on the subject to date:

> That a ship or vessel, with her apparel and cargo, and flotsam, jetsam, and logan which have formed part of one or the other of these, are subjects of salvage, is clear law . . . the float could not be regarded as a ship or a vessel. . . . It was not constructed for the purpose of being navigated or of conveying cargo or passengers. It was, in truth, a lighted buoy or beacon. The suggestion that the gas stored in the float can be regarded as cargo carried by it is more ingenious than sound. It was, however, argued that, even if the float be not a ship or a vessel, the award of salvage can, nevertheless, be supported, inasmuch as the Admiralty Court has jurisdiction to award salvage in respect of every object, no matter what, which, being in peril at sea . . . has been saved from that peril. Not a single decision, not even a dictum, of any English judge was cited to your Lordships as an authority for this wide view of admiralty jurisdiction. And it does not obtain any substantial support from the works of lawyers of recognised authority, who have refined what is meant by "salvage" in maritime law. . . .[103]

Perhaps the court's reason for refusing to extend salvage rules to buoys was a fear similar to that voiced by the IOC, although they gave the conventional basis for their holding in the opinion.

Courts in the United States also narrowly applied salvage rules[104] until recently when the test of salvageability was judicially changed from one of subject matter to one of locality:

> The test as to what is the subject of salvage is no longer, whether it is a vessel engaged in commerce or its cargo or furniture, but whether the thing saved is a movable thing, possessing the

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99 The Sabine, *supra* note 97.

100 *Ibid.*

101 76 L.T. (n.s.) 663 (H.L. 1897).

102 *Ibid.*

103 *Ibid.*, p. 665.

104 Cope v. Vallette Dry Dock Co., *supra* note 98, at 629; Maltby v. Steam Derrick Boat, 16 Fed. Cas. 564 (No. 9,000) (E.D. Va., 1879).

> attributes of property, susceptible of being lost and saved in places within the local jurisdiction of the admiralty.[105]

It is likely that under this test, the stations would be a proper subject of salvage. But here again, if it is decided that the protection afforded by the Anglo-American system of salvage law is desired, it is not necessary to wrestle with the problem of its past application. If the law's protection is desirable, all that need be urged is its adoption by the signatories for future application.

V. JURISDICTION

Whenever a controversy involving an ocean station occurs, there are likely to be conflicting claims of jurisdiction to determine the rights and liabilities of the parties involved. The state of the injured party will claim jurisdiction in order to insure that the damage is redressed; the state of the guilty party will assert its right to determine the cause to guarantee that the issues are fairly decided. The means of resolving this question is through a convention which will provide for (1) the exchange of jurisdictional powers among the signatory states or (2) vest all jurisdiction in an international body, such as the IMOC, which will adjudicate the claims.

A state can only yield as much jurisdiction as it has; thus, the breadth of existing jurisdiction of the states must be examined. The United States[106] and England[107] assert jurisdiction over admiralty claims wherever they arise, notwithstanding the fact that the parties to the controversies are not domiciles or citizens of the respective states.

In practice, both nations have determined claims arising in navigable waters everywhere. They have effectively adjudicated claims arising from a collision between two domestic ships in foreign waters,[108] between two foreign ships which collided in foreign territorial waters,[109] and two foreign ships which collided on the high seas.[110] Jurisdiction

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[105] Broere v. Two Thousand One Hundred Thirty-Three Dollars, 72 F. Supp. 115, 118 (E.D.N.Y. 1947). See also Colby v. Todd Packing Co., 80 F. Supp. 761 (D.C. Alaska, 1948).

[106] 28 U.S.C. § 1333 (1964).

[107] Administration of Justice Act, 1956, 4 & 5 Eliz. 2, c. 46. Admiralty shall have jurisdiction to determine claims of damage done by or to a ship, wherever arising, whether or not the parties to the controversies are British.

[108] The Diana, 539 Lush 243, 167 Eng. Rep. 243 (Adm. 1862).

[109] The Courier, 541 Lush. 239, 167 Eng. Rep. 244 (Adm. 1862), involving a collision between two foreign ships in foreign waters.

[110] The Belgenland, 114 U.S. 355 (1885), involving a collision on the high seas between a Belgian and a Norwegian ship.

has also been asserted over crimes committed on board domestic ships located in foreign territorial waters.[111]

Most significantly, they have asserted jurisdiction to adjudicate claims arising from damage done by or to an aid to navigation, notwithstanding the location of the object. The justification for asserting such jurisdiction is that such damage, occurring in navigable waters, is a maritime tort, and admiralty courts have always had jurisdiction over a cause of action arising in navigable waters.[112] The test for jurisdiction is the locality of the act.[113]

The Blackheath[114] opinion presents the classical justification for assertion of jurisdiction over damage done by or to aids to navigation. There a ship collided with a beacon which was mounted on piles in the Middle of the Mobile River. The court, in answering the allegation that admiralty lacked jurisdiction to try the case, said:

> It is enough to say that we now are dealing with an injury to a government aid to navigation from ancient times subject to the admiralty, a beacon emerging from the water, injured by the motion of the vessel, by a continuous act beginning and consummated upon navigable water, and giving character to the effect upon a point which is only technically land, through a connection at the bottom of the sea. In such a case, jurisdiction may be taken without transcending the limits of the Constitution. . . .[115]

The case of *The Tolten*[116] involved damage done by a ship to a wharf in foreign waters. The court found that it had to adjudicate the *in rem* suit by reason of its general jurisdiction over torts occurring in navigable waters.[117] An identical decision was rendered in *The Raithmoor*,[118] which involved a collision of a ship with a beacon. And again in *The Mackinaw*,[119] the court found that it had jurisdiction. *The Mackinaw* is particularly important since it concerned damage done to a floating, moored pontoon, an object quite similar in construction to the ocean stations.[120]

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111 United States v. Flores, 289 U.S. 137 (1933). Murder of an American citizen by another American citizen aboard an American vessel in a port in the Belgian Congo. See also 18 U.S.C. § 7 (1964), United States v. Dixon, 73 F. Supp. 683 (E.D.N.Y. 1947), where defendant was an alien.

112 Atlantic Transport Co. of West Virginia v. Imbrovek, 234 U.S. 52 (1914).

113 *Ibid.*

114 195 U.S. 361 (1904).

115 *Id.* at 367.

116 [1946] 2 All E.R. 372 Adm.

117 *Ibid.*

118 241 U.S. 166 (1916).

119 165 Fed. 351 (1908).

120 *Ibid.*

It is apparent that at least in theory states will have jurisdiction over the acts wherever they may occur, and the jurisdiction will be concurrent. The result may be that one incident will give rise to problems of multiple suits in different jurisdictions, res judicata, and recognition and effect of foreign judgments.

While an inchoate lien arises against the offending object at the moment of damage,[121] an admiralty court must obtain *in rem* jurisdiction over the offender before the lien can be perfected, and the damages paid.[122] Admiralty must have physical possession of the vessel before the suit can be determined, i.e., the vessel must be subjected to the jurisdiction of the court by arrest.[123] If the damage occurs outside of the territorial limits of the state, the court may not be able to assert its jurisdiction if the offender refrains from entering the venue of the court. This fact substantially limits the jurisdiction of admiralty.

To avoid conflicts over jurisdiction,[124] to expand the practical limits of the adjudicating body's effectiveness, and to otherwise implement the proposed substantive system set out above, some provision must be made in the convention concerning jurisdiction.[125] Two alternatives are available: first, an exchange of jurisdiction among signatories to the convention. Each signatory will vest in all other signatories all the maritime jurisdiction it now possesses or claims to possess for the sole purpose of adjudicating claims relating to the ocean stations. The injured party may bring suit in the courts of any signatory state, which will determine the claim according to the system outlined above. The judgment will be executed by the signatory state which is the domicile or residence of the guilty party, or if no signatory state be the domicile or residence of the offender, then the signatory state which first asserts physical power over the property or person of the guilty party. The second alternative is to place all jurisdiction in one body, such as the IOC. All signatory states would vest all the maritime jurisdiction they possess or claim to possess in one supreme judicature for the sole purpose of determining claims relating to the stations. No signatory would possess any power to determine the claim, but each will retain the power to attach the purported offender's person or property during the period that the claim is being decided, and to

121 The China, 74 U.S. (7 Wall.) 53 (1868).

122 Harmer v. Bell, 7 Moore 267, 13 Eng. Rep. 884 (P.C. 1851).

123 The Philomena, 200 Fed. 859 (D. Mass. 1911).

124 See The Case of the S.S. Lotus, P.C.I.J. Ser. A, No. 10 (1927).

125 See: International Convention on Certain Rules Concerning Civil Jurisdiction in Matters of Collision, and International Convention for the Unification of Certain Rules Relating to Penal Jurisdiction in Matters of Collisions or Other Incidents of Navigation, Benedict, Admiralty, 35-48 (Knauths ed. 1958).

execute the claim, if necessary. The power to attach and execute upon the offender will be based, as above, upon domicile, residence, or assertion of physical power over the offender. Alternative number one offers an array of convenient forums to the injured party, but lacks the advantage of uniform application of the law and a safeguard against multiple suits. Alternative number two presents the possible problem of an inconvenient forum, but assures uniform application of law, an impartial court, and an extensive and effective execution of judgments.

Each alternative contains attractive features not found in the other. Regardless of which is selected, one of these suggestions, or a similar proposal, should be embodied in the convention in order to achieve adequate protection for the stations. The finest substantive provisions will be meaningless if the accompanying jurisdictional provisions are, for all practical purposes, unworkable.

Conclusion

Information gained through employment of research stations will benefit all other ocean-orientated activities; and since all ocean interests will share in the productivity of oceanographic stations, it follows that all these interests should yield a portion of their virtually unrestricted use of the seas in order that the research stations may carry on their work undisturbed.

Executing a protectionist policy, then, should be a foremost consideration in the selection or formulation of a system of law by which to determine the rights and liabilities of parties involved in collision, theft and salvage claims centering around the stations. Provisions concerning liability in the event of collision between the stations and other ocean craft should be weighted in favor of the station owners. The remedies afforded by these provisions should not only compensate station owners for damages sustained, but also provide remedies which will deter collision in the first instance. This will require penalties in excess of those now provided in the event of collision between conventional ocean craft.

Similarly, provisions concerning intentional damage or destruction and theft should also provide strong deterrents. In those instances where a malicious act is committed, the remedy should be sufficient to compensate the station owner for his loss.

The protectionist policy requires more than providing for deterrence of, and compensation for collision, intentional destruction, and theft. It also requires an inducement to other ocean operators to voluntarily protect the stations from damage and destruction at the hands of nature or as a result of peril due to the acts of third parties. For this

reason, provision should be made in the convention for a system of rewards for salvors which is as attractive as that now provided for salvors of conventional vessels and marine objects.

Finally, in order to guarantee the effectiveness of the substantive law scheme, provision should also be made in the convention concerning jurisdiction to adjudicate claims. While in theory many states assert broad jurisdiction to adjudicate maritime claims, the practical application of this power has been somewhat less than orderly. Further, in order to give practical effect to the protection provided by the substantive portion of the convention, some guarantee must be made that not only will the litigants have easy access to a forum and uniform application of law, but also that the judgments rendered will be enforced. This result can only come from a provision clearly outlining the jurisdiction of the signatory states or of an international judiciary, as the case may be, and the process whereby judgments may be executed.

James E. Kline